

AMSAT News Service Weekly Bulletins

Issue: ANS-243

Date: 2014-08-31

Sources: amsat-ans-2014-ans-243-weekly-hyperkitty-fb50b15078.txt

AMSAT NEWS SERVICE

ANS-243

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on <http://www.amsat.org> publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-243 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 243.01

From AMSAT HQ Kensington, MD.

August 31, 2014

To All RADIO AMATEURS

BID: \$ANS-243.01

AMSAT-NA Board of Directors Ballot Deadline Approaching

A final reminder that Board of Directors ballots must be returned to the AMSAT-

NA office by 15 SEP 2014 in order to be counted. Your returned ballot should be sent promptly, and those from outside North American preferably by air mail or other expedited means.

Normally there would be 3 full Board seats open this year, plus 2 alternates.

However, with the passing of Tony Monteiro, AA2TX (SK), there will be an additional full Board seat open to fill the remainder of his term. This means

that the top three recipients of votes will have two-year terms, the fourth most vote recipient serving as full member for one year. The fifth and

sixth highest vote recipients will serve as first and second Alternate, respectively. You may vote for up to 4 individuals.

Election of board members is both an obligation as well as an

opportunity by our membership to help shape the future direction of AMSAT-NA. Please take the time to review the candidate statements that accompany the ballot and determine who you wish to see on the Board.

[ANS thanks Alan, W4SCA, for the above information]

W1AW/7 Satellite Operations

Following the schedule for W1AW/x portable activity during 2014, next week will start the second of the two weeks W1AW/7 will air from Arizona. The first W1AW/7 Arizona satellite activity in March was successful (thanks, John K8YSE, for making good use of the K8YSE/7 station in Arizona that week). The next operation will be starting at 0000 UTC Wednesday, 27 August (2000 EDT/1700 PDT on Tuesday, 26 August).

Patrick, WD9EWK/VA7EWK, will be operating as W1AW/7 on weeknights, and plan on more activity during the Labor Day weekend (30 August-1 September) that falls within this one-week period. He is working on having additional operators for the weekday passes, when he won't be able to get on the radio. As with any of the W1AW/x activities, ARRL will handle the QSLing. ARRL will upload all W1AW/7 logs to Logbook of the World, in addition to the paper QSL cards that will be available later.

If you also work other bands and want to work W1AW/7 from Arizona next week, the W1AW/7 Arizona activity coordinator, Ned Stearns AA7A, has a schedule showing when the other stations operating as W1AW/7 will be on - and on what band/mode combinations. This schedule is still being assembled, so more slots will be filled in as we get closer to next week.

You can see that schedule at:
http://aa7a.net/W1AW/W1AW_7_AZ_1September.htm

Satellite operating times will not appear on Ned's schedule, as Patrick is coordinating that part of the W1AW/7 effort. Patrick will use the AMSAT-BB list and his Twitter @WD9EWK feed (<http://twitter.com/WD9EWK>) to send out updates for the W1AW/7 satellite activity.

Good luck, and 73!

[ANS thanks Patrick, WD9EWK/VA7EWK, for the above information]

Fox-1 Update - Slow Speed Telemetry

The Fox-1 series of satellites feature a slow speed telemetry, with 200 bps data being sent along with the transponder audio or voice ID activity. This allows telemetry to be sent continuously during normal transponder operation

while QSOs
are taking place.

The slow speed data is contained in the audio spectrum below 300 Hz.
Using DSP
techniques, high pass filtering is applied to the uplink signal and
voice IDs,
low pass filtering is applied to the telemetry audio which is generated
by the
IHU, and the combined audio is sent on the downlink as the voice and data.
Forward error correction added to the downlink stream provides data
recovery for
up to 1/4 second signal fades.
Fox-1A slow speed telemetry

Screen print of actual Fox-1A downlink slow speed telemetry received
over the
air on a FUNcube Dongle Pro+ with SDR# and a decoded/displayed with
command line
version of the AMSAT ground telemetry decoding software used in our testing

The slow speed data on Fox-1A contains four different payload types: Current
telemetry readings, High telemetry readings, Low telemetry readings, and
Vanderbilt University radiation experiment telemetry. The payloads are
transmitted in a scheduled rotation that delivers one payload or frame about
every 5 seconds. Current telemetry is thus received every 15 seconds,
experiment telemetry is received about twice every 15 seconds, and high
or low
telemetry received once every minute (alternating minutes between high
and low).

The telemetry contains many satellite health and operation values, including
readings such as solar panel output, battery voltages, temperatures from
various
areas of the satellite, IHU performance, and the Penn State University
MEMS gyro
experiment data.

AMSAT will be providing free GUI software for decoding and displaying
both slow
and high speed telemetry from the Fox-1 series of satellites, as we get
closer
to launch. The software will be similar to the user software that was
provided
for ARISSat-1.

AMSAT has an immediate need to raise funds to cover both the launch
contract and
additional materials for construction and testing for Fox-1C. We have set a
fundraising goal of \$125,000 to cover these expenses over the next 12
months,
and allow us to continue to keep amateur radio in space.

Donations may be made through the AMSAT webpage at www.amsat.org, by calling
(888) 322-6728 or by mail to the AMSAT office at 10605 Concord Street,
Kensington, MD 20895, USA. Please consider a recurring, club, or corporate
donation to maximize our chance of success with this mission. You may also
donate via PayPal. Donations will be marked specifically for Fox-1C. Note
that PayPal usually allows you to donate with a credit card, even if you
do not
have a PayPal account. However, PayPal requirements differ depending on your
country. We have not control over this issue.

You may also contribute through a special "crowd sourcing" campaign on

fundrazr.com at the following link.
<https://fundrazr.com/campaigns/6pz92>

[ANS thanks Jerry, N0JY, for the above information]

Peruvian Cubesat Chasqui-1 Deployed From ISS

The Russian Space Agency, Roscosmos announced that a nano satellite with the designation, NS-1 was hand-launched during a space walk that began at 14:00 UTC Monday, August 18, 2014.

The satellite is also referred to as the Peruvian Cubesat Chasqui-1 and weighs 1.5 kg. The satellite's main mission is to serve as a platform for testing micro-electronics and optical devices used in cubesat applications.

Its secondary mission is to operate as an amateur radio satellite. It's transmit downlink is 437.025 MHz. The craft will send information in CW mode. It also transmits images stored in memory, photos taken by two on board cameras and will send telemetry. Data transmissions will use either 1200 bps AFSK AX.25 or 9600 bps GMSK modes.

[ANS thanks , for the above information]

ARISS News

A direct contact with students at Dorothy Grant Elementary School, Fontana, CA, USA was successful Wed 2014-08-27 18:31:28 UTC 83 deg. Astronaut Alexander Gerst, KF50N0 was able to answer 7 questions for students during the communication window.

Dorothy Grant Elementary School proudly earned the California Department of Education's 2013 Title I Academic Achievement Award and is a California Distinguished School. This prestigious honor is a reflection of the school's system of support for all students at all learning levels. Innovative intervention strategies and differentiated instruction greatly impacted school-wide student performance to meet state and federal standards of excellence.

On October 27, 2012, the Dorothy Grant Elementary Amateur Radio Club was established. Each year nearly 50 students in the 4th and 5th grades learn about amateur radio and participate in activities and programs that teach them about electronics and radio communication techniques. Amateur radio has enhanced reading, writing, mathematics, geography, and communication skills for all students. The club recently installed a 50 ft. Rohn tower and beam antenna in hopes of making more international contacts on 10, 15, and 20 meters. The use of

technology is strongly emphasized throughout the curriculum and used as a tool to enhance class lessons.

A telebridge contact via IK1SLD providing an interview for students at SPACE KAMP Sterrenlab, Noordwijk, The Netherlands with astronaut Alexander Gerst, KF50N0 was successful Tue 2014-08-26 11:36:32 UTC 65 deg. Gerst answered 18 questions for students.

The Amicale Space Camp includes 25 children aged 8-13 years old of different European nationalities. It includes children of the European Patent Office staff and takes place in Noordwijk (Stay Okay hostel) from the 25th to the 29th of August 2014. All camp activities are designed to entertain children, stimulate their creative and manual skills, and teach them about science and space. The contact with the International Space Station will be a key activity in the program as it gives the children the opportunity to talk with an astronaut and understand that space is an international endeavor.

A direct contact with students at Winfree Bryant Middle School, Lebanon, TN, USA was successful Tue 2014-08-26 16:12:47 UTC 24 deg. Astronaut Gregory Wiseman, KF5LKT answered 16 questions for students.

[ANS thanks Charlie, AJ9N for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU40S
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